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ABSTRACT

This discussion of universe-scope relations in Chinese and Japanese provides a contrastive analysis of certain features in the two languages. A striking similarity in the deep structure of the noun phrase in both languages is noted and discussed in detail. Both languages have two constituents in a noun phrase which have a semantic relationship called universe-scope and two mutually exclusive categories called totality-scope and partitive-scope. The two languages share the same set of Categorial Rules (at least for deriving sentences presented in this paper) and need different rules only in their lexical and transformational rules. The detailed discussion includes many examples in both languages. (Author/VM)

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UNIVERSE-SCOPE RELATIONS IN CHINESE AND JAPANESE

by

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1. Introduction

In this paper we shall discuss the Universe-Scope relation in Chinese and Japanese. This is the relation between two expressions such as the underlined ones in the following:[1]

1aC. na bage xuesheng (1) zhi lai le sange (2)

J. ano hatinin no gakusei (1) wa/ga sannin (2) dake kimasita

E. Only three (2) of the eight students (1) have come.

2aC. (wo) qunian maide na baben shu wo mai le sanben

J. (watakusi ga) kyonen katta ano hassatu no hon wa watakusi ga sansatu urimasita

E. Of the eight books I bought last year, I sold three.

As for the eight books I bought last year, I sold three of them.

To explain how the two underlined expressions in each of the above sentences are related to each other and to the other elements, we find it convenient to recognize two syntactic categories labelled Universe (UNV) and Scope (SCP)[2] corresponding to the first and second underlined expressions respectively in the above sentences.

Their semantic relations seem rather easy to grasp. The first expression in each of the two sentences whether in Japanese or in Chinese (or in the English translations), denotes the whole, whereas the second denotes that part of the whole that is relevant to the action denoted by the verb. Hence the real 'subject'[3] in 1a is the second expression, and the real 'object' in 2a is again the second expression; the first expression in each case merely denotes the whole of which what is denoted by the second is a part. It will sometimes be referred to as the real or deep Subject, in contrast with the derived or surface Subject which is taken as synonymous with Topic in this paper.

Though we feel that other notions such as Instrument, Agent, Ergative, etc. may be used in place of Subject, Object, etc. to account for the semantic relations between elements in the Base and so avoid confusion

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with logical subject (Topic) and predicate (Comment), we will use the more traditional terms in this paper.[4]

2. Relations between Universe and Scope

Some syntactic relationships between UNV and SCP are observed as follows:

(1) Both Universe and Scope may contain numeral phrases (NUP)[5] and one of them, usually the UNV, has the head noun. The SCP generally has no head noun but we can always reconstruct one for it: i.e. the same noun appearing in UNV. (Or, we could regard the noun as shared by the numeral phrases in UNV and SCP (1a, 2a).

(2) In case both UNV and SCP contain a head noun in an actual sentence, they should be different, and there are strict (semantic or grammatical)[6] co-occurence restrictions between the two nouns. e.g.:

3aC. wenju wo zhi mai le qianbi.

J. Bunboogu wa watakusi wa enpitu dake (o) kaimasita.

E. As for stationery I bought only pencils.

3bC. zhuoshang de dongxi wo zhi na le yizhi qianbi.

J. Tukue no ue no mono wa watakusi wa enpitu dake (o) torimasita.

E. As for the things on the desk I took only a pencil.

Unless specified by some specifying marker such as nei (or na) 'that' or zhei (or zhe) 'this' (cf. 3d) the noun in SCP should be a specific term, e.g. 'chicken, duck', and that in UNV should be a more general term which includes the former, e.g. 'poultry, animal'. (The UNV/SCP slots seem to be a suitable frame for semantic investigation of Chinese and Japanese nouns with regard to general-specific features and relations of hyponymy).

The noun in SCP may be as specific as a proper noun (3c) or a common noun specified by definite marker nei, zhei (3d) or some other type of specifier.

3cC. naxie xuesheng zhiyou Lao Wang lai.

J. Ano gakuseitati wa Oo san dake (ga) kimasita.

E. Among those students only Lao Wang came.

3dC. naxie xuesheng zhiyou zheige ren lai.

J. Ano gakuseitati wa kono hito dake (ga) kimasita.

E. Among those students only this person came.

(3) The measure word (or classifier) used in UNV and SCP should be identical or at least both should been the same co-occurence restrictions with regard to the noun. If the two measure words are identical, the number in the UNV should be arithmetically greater than the number in the SCP. In case the measure words are different, the one for UNV should be a group measure such as Chinese ban, Japanese daasu 'dozen'. If the measure in SCP is a group measure itself, then the group measure in the UNV should be a group measure for a larger unit.

(4) In both languages there may be a particle or an adverb which indicates the speaker's attitude or impression towared the size denoted by SCP against the UNV.

For Totality (Tot) scope Chinese uses dou, Japanese uses de mo, or mo, the presence of which is determined by the presence of some Totality words, i.e. dou and mo are predictable and semantically insignificant.

4C. Tamen {quanbu / henduo / shei} dou lai le

J. Karera wa {minna / kanari ooku / dare de mo} kita

E. {All of them / Quite a lot of them / Each of them} came

For Partitive (Prt) scope, Chinese may use zhi (or cai) 'only'[7] to indicate that the SCP is smaller than would be expected; Japanese uses dake (or sika plus negation of the verb) for the same purpose. (See 1a)

In contrast to dake, Japanese may use mo[8], which is mutually exclusive with dake (or sika plus negation of the verb) in occurrence, to indicate that the SCP is bigger than expected.

1bJ. Ano hatinin no okyakusan wa sannin mo kita.

E. Of the eight guests (as many as) three came.

The Chinese counterpart of Japanese mo is jiu and jing. jiu as SCP adverb can be used only in pair with guang 'so far as ... is concerned' which can be regarded as a modifier to the UNV.

5aC. guang zheiban xuesheng jiuyou sange lai

E. So far as this class of students is concerned, as many as three came.

The meaning of jing is 'eventually, contrary to one's expectation'. It may co-occur with dou or zhi.

5bC. tamen jing quanbu dou lai le

E. They all came, after all.

5cC. tamen jing zhi lai le sanwei.

E. Only three of them came, after all.

But when it occurs without the latter it denotes 'in spite of everything', just like mo in Japanese

6aC. na bage haizi jing si le sange.

E. Of the eight children even (as many as) three died.

(5) The nominal for UNV generally has a definite reference, and hence may often be marked as such by zhei, nei in Chinese and kono 'this', sono 'that', ano 'that' in Japanese. The nominal in SCP may either be definite or indefinite.

(6) Unless UNV is predicated, UNV always occupies an earlier portion in the sentence than the SCP. Moreover, it can be followed by Chinese dang zhong 'in', Japanese no uti de, (no naka) de 'in' without any difference in denotation. In the latter case no other case marker except wa is used for UNV.[9] For example, 1a can be said as

1aC. nabawei keren dangzhong lai le sanwei

J. ano hatinin no okyakusan (no naka) de (wa) sannin kita.

(7) It is possible to put UNV and SCP together in the surface structure where they are linked by Chinese de, litoude or dang zhongde, Japanese no, no naka no, no uti no, separated by no other element (1e, 2e).

1eC. na bage xuesheng (dangzhong) de sange lai le

J. ano hatinin no gakusei no (uti no) sannin ga kita.

E. Three of the eight students have come.

2eC. wo maidiao le (wo) qunian maide na baben shu (dangzhong) de sanben

J. watasi ga kyonen katta ano hassatu (no naka) no sansatu o urimasita.

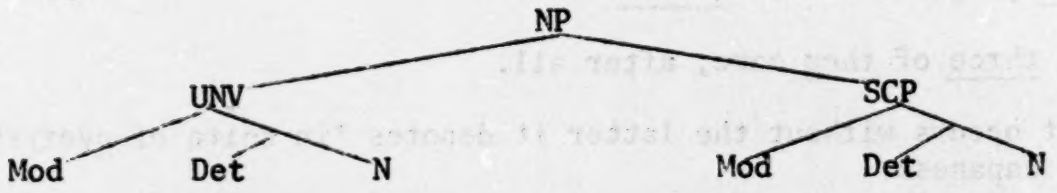
E. I sold three of the eight books I bought last year.

How sentence 1a as a whole differs from 1e and 2a from 2e is an important question which we try to discuss later. It suffices here to

point out that the two underlined expressions in 1a or 2a have the same semantic relationship as those in 1e or 2e and that sentences 1a and 1e, 2a and 2e are related and their relationship should be indicated in our grammar.

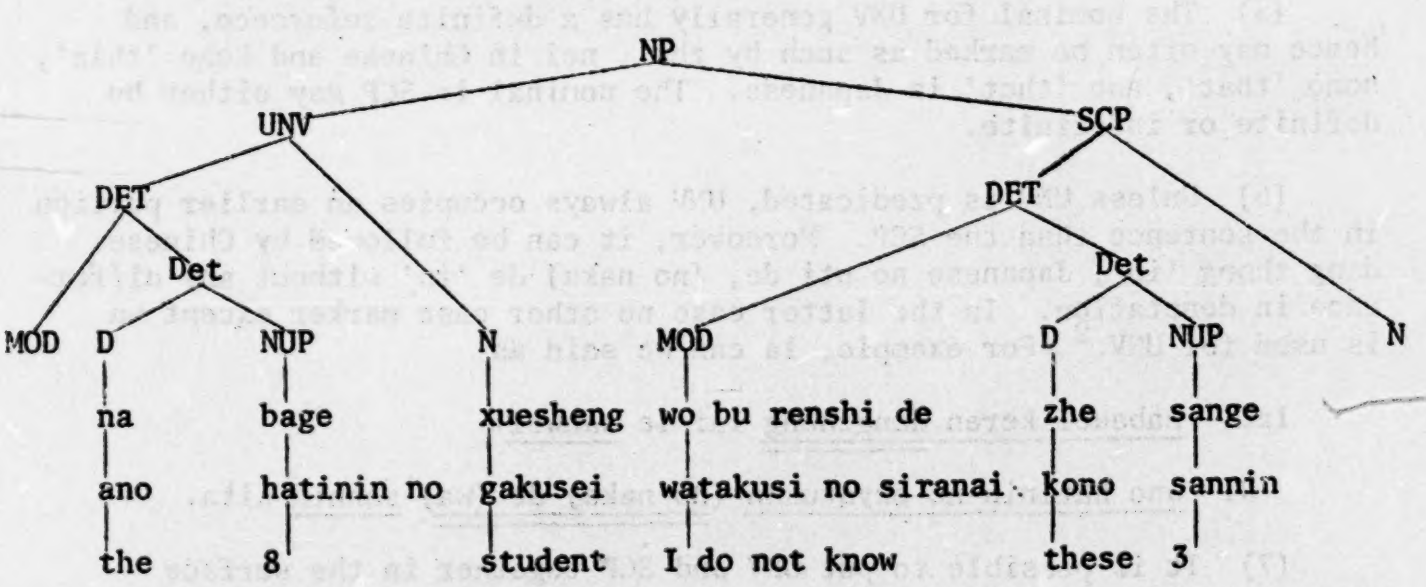
To account for the above observations and others to be presented shortly we find it proper to expand a noun phrase[10], be it the Subject or the Object in the sentence, as follows:

7.

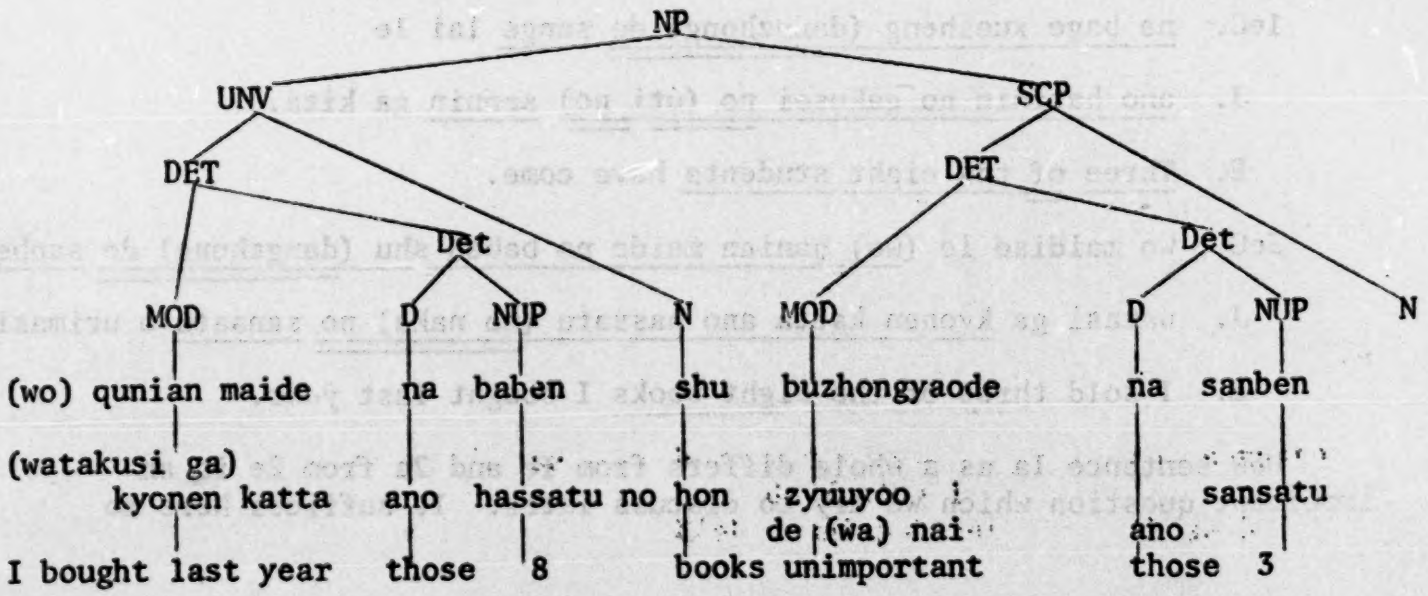


Here are tree representations of the deep structures of sentences 1 and 2 (simplified):

7a. (The Subject of Sentence 1)

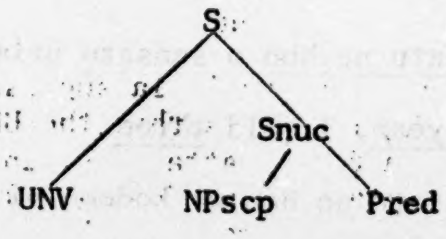


7b. (The Object of Sentence 2)



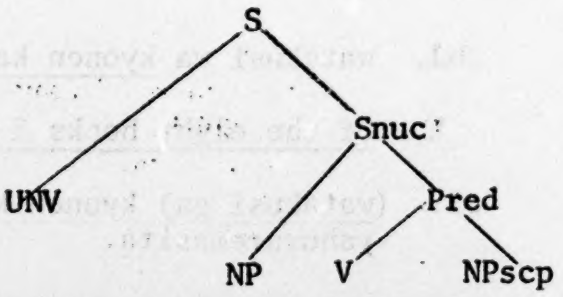
We find this solution a better one than the alternative that treats the UNV as a sentence adverb and the SCP as the Subject (for 1) or Object (for 2). For from what has been observed above we feel that the UNV should be directly related to SCP rather than to the rest of the sentence as shown in:

8a.



or

8b.



It may be contended that P-marker 8 is better than 7 since 8 takes account of the observation that UNV is something known and the rest of the string, i.e. NPscp + Pred or NP + NPscp, as a whole gives new information about the UNV. Though we do not deny the relevance of taking account of the described-describing relation or Topic-Comment relation in our grammar, we feel that an incorporation of such an observation should not affect the basic semantic relation that exists between UNV and SCP.[11]

In spite of the fact that semantically it is the SCP that actually 'come' in sentence 1a and 'are sold' in sentence 2a, the UNV may behave like the real (surface) Subject or Object in both Chinese and Japanese.

The Chinese examples in 1a appears to have UNV as the Subject, for the normal order of a Subject and an intransitive verb is Subject + Verb. As to 2a when the pretransitive BA or passive BEI (bei, gei) is used, the UNV can be treated like the Object,

2bC. wo ba (wo) qunian mǎide na baben shu maile sanben

E. I sold three of the eight books I bought last year.

cC. (wo) qunian mǎide na baben shu gei haizi sipole sanben

E. Three of the eight books I bought last year were torn by the children.

By ignoring the SCP's which occur after the verb, which may be analyzed as verb complement, we find the above examples in conformity with the general pattern for BA and BEI sentences.

Subject + BA + Object + Verb

Object + BEI + Subject + Verb

In the case of Japanese, the case marker ga in 1a suggests that the UNV is the Subject and the o in 2aJ, 2bJ indicates that the UNV rather than the SCP is the marked Object. (Cf. A ga B o sikatta 'A scolded B') And the use of the passive form A wa B ni V rareta ('A was Ved by B') in 2cJ also suggests that the UNV is the object. Notice here that there is no case marker after the SCP.

2bJ. watakusi wa kyonen katta ano hassatu no hon o sansatu urimasita.

E. Of the eight books I bought last year, I sold three.

cJ. (watakusi ga) kyonen katta ano hassatu no hon wa kodomo ni sansatu yaburaremasita.

E. Three of the eight books I bought last year were torn by the children.

However, to treat SCP as a verbal complement or an adverb in the Base is not proper in spite of the fact that 2b and 2c are grammatical and that 1a is very similar to 9 in surface structure.[12]

9C. na bage xuesheng zhi lai le sanci

J. ano hatinin no gakusei wa sankai dake kita

E. Those eight students came here only three times.

This is so because the SCP can also behave like a surface subject or object, (see 1aJ where if the UNV takes wa the SCP can take ga, and esp. 1eJ or 2eJ). Moreover, it is noteworthy that in Japanese a demonstrative (d) or relative clause (Mod) can be added to the SCP, and in this case there should be a case marker as in 1f, 2f, 2g and the UNV usually has dewa, de, or wa rather than ga or o.

1fC. nà bage xuesheng zhi lailе zhe sange.

J. ano hatinin no gakusei wa kono sannin dake ga kita.

E. Out of the eight students only these three have come.

2fC. (wo) qunian mǎide na baben shu wo màidiao le na sanben.

J. (watakusi ga) kyonen katta ano hassatu no hon wa watakusi ga ano sensatu o urimasita

E. As for the eight books I bought last year, I sold those three.

2gC. (wo) qunian maide nà baben shu wo màidiao le buzhongyaode nà saben.

J. (watakusi ga) kyonen katta ano hassatu no hon wa watakusi ga zyuuyoo de (wa) nai ano sansatu o urimasita.

E. As for the eight books I bought last year, I sold those three unimportant ones.

Except for most expressions of Totality, the Scope can assume the role of Predicate with all the rest of the sentence functioning as the Subject.[13] Chinese, however, uses this pattern much more often than Japanese.

1hC. Nei bawei keren meiyou lai de you sanwei.

J. Ano hatinin no okyaku san de konakatta no wa sannin iru.

E. Of the eight guests there were three who did not come.

2hC. (wo) qunian mǎide na baben shu wo màidiao de shi zhe sanben.

J. (watakusi ga) kyonen katta ano hassatu no hon de bokuga utte simatta no wa kono sansatu da.

E. Of the eight books I bought last year those I sold were these three.

3. Some PS-rules for UNV and SCP

In spite of many apparent differences between Chinese and Japanese, there is a striking similarity in the deep structure of the Noun Phrase. This may not be so surprising if we recognize in both languages (1) two constituents in a Noun Phrase which have a semantic relationship called universe-scope; (2) two mutually exclusive categories called Totality scope and Partitive scope which can be easily distinguished on the basis of their co-occurence with words like dou or zhi in Chinese, mo or dake in Japanese.[14]

As a matter of fact, the two languages share the same set of Categorial Rules (at least for deriving sentences we are presenting in this paper) and need different rules only in their lexical rules and transformational rules.

In the following, we present one and the same set of categorial rules for both Chinese and Japanese and their two different sets of lexical rules, one for Chinese and the other for Japanese.[15]

3.1 BASE I. Categorial rules (for both Chinese and Japanese)

1. S --→ SUB + Pred

2. Pred --→ ⟨OBJ⟩ + Vb

Here we use "SUB", "OBJ" to account for Subject-of or Subject-of relation. The significance of order among the elements is thus reduced to

a minimum in the Base since we depend on the categorial labels Subject, Object, etc. rather than the order of elements such as NP + Pred, Vb + NP for indication of the relational information of elements.

This will mean that we regard differences in the order of, say, Object and Verb between the two languages as something which pertains to the surface structures but is smuggled into the Base.[16] Hence, there will be a T-rule that puts, for example, a Chinese Object after the verb obligatorily under certain conditions and optionally under other conditions.

3. $\left\{\begin{matrix}\text{SUB}\\ \text{OBJ}\end{matrix}\right\} \rightarrow$ NP

4. NP $\rightarrow$ ⟨UNV⟩ + SCP

Since we establish nodes SUB, OBJ etc. to account for grammatical relationships in the Base, we find it unnecessary to introduce Japanese case markers ga, o, etc. here. From the nodes SUB, OBJ, case markers should be derivable through transformational rules. In doing so, we make the P-rules of the two languages more alike, observing the rule of not introducing anything predictable (i.e. non-significant in meaning).

This will mean that in the Transformation Component, instead of deleting ga or o obligatorily, or ni, de, etc. optionally in the presence of wa in the same Noun Phrase, we insert optionally ni, de, etc. where there is no wa in the same Noun Phrase (See 4.1. for our interpretation of wa).

T-opt NP $\rightarrow$ $\left\{\begin{matrix}\text{NP + de} & \text{/Locative [_____ + wa]}\end{matrix}\right\}$

T-obl NP $\rightarrow$ $\left\{\begin{matrix}\text{NP + ga} & \text{/SUB [ ]}\\ \text{NP + o} & \text{/OBJ [ ]}\\ \text{NP + de} & \text{/Locative [ ]}\end{matrix}\right\}$

As a matter of fact, any Noun Phrase functioning as Subject, Object, Locative, etc. can take case markers wa or no in certain contexts and it is when a noun phrase does not have any case marker already that the case marker ga or o is attached.

5. SCP $\rightarrow$ ⟨Neg⟩ + $\left\{\begin{matrix}\text{TOT}\\ \text{ADscp + PRT}\end{matrix}\right\}$ + N (ADscp = Adverb on Scope)

For discussion of inclusion of Negation (Neg) in SCP, see the last two paragraphs of this section and Footnote.

6. TOT $\rightarrow$ $\left\{\begin{matrix}\langle\left\{\begin{matrix}\text{Q}\\ \text{Dist}\end{matrix}\right\}\rangle + \text{Tot} + \langle\text{Nup}\rangle\\ \text{Conj}\end{matrix}\right\}$ (Nup = Numeral Phrase)

There are several similar devices for showing the idea 'all' in the two languages:

(1) The first device is the use of question words plus Chinese dou and Japanese mo or demo to express the idea of 'each' or 'every'. We shall

derive these as follows: (Chinese quan 'all', Japanese mina 'all' is a Tot word).

Q+quanbu+N--> ⟨wulnun⟩+shenme+N--> ⟨wulun⟩ { shei 'whoever' (if N = Nh); nali 'wherever' (if N = Nloc); shenme 'whatever' (if N = Nh, Nloc) }

e.g. 11aC. *Neixie ren wo Q+quanbu+N dou renshi -->
Those people I all know

a'. Neixie ren wo ⟨wulun⟩ (shenme ren-)shei dou renshi.
'I know everyone of them.'

11bC. *ta Q+quanbu+difang dou qu guo -->

b'. ta (shenme difang-) nǎli dou quguo
'He has been (to) everywhere.'

Q+quanbu+Nup --> ⟨wulun⟩ Nǎi+yi+M ==> wulun renheyiM (where Nup = Num + M)

e.g. 11cC. *Zheixie shu Q+Quanbu+Num+M dou hen haokan -->

c'. Zheixie shu ⟨wulun⟩ nǎi yiben dou hen haokan

c". " " renhe " " " "

All these books are very interesting.

(2) The second one is the use of the Distributive Morpheme (Dist) mei 'every' plus yi 'one' plus measure and reduplication of the measure. This device is not used in Japanese, except in time expressions, e.g. mai niti 'everyday', maido 'each time'.

D + quanbu + Nup --> { mei + ⟨yi⟩ + M ; N + N } (where Nup = Num + M)

12aC. *Neixie shu Dist + quanbu + Nup dou hen haokan.

a'. Neixie shu { mei yi ben ; ben-ben } dou hen haokan.

Each and every one of those books is very interesting.

Though in actual realization mei yige 'everyone', mei ge 'every one' are both possible, the yi 'one' should be regarded as essential to start with, for the optional deletion of yi after a stressed syllable is a very general one in Mandarin.

(3) The third device common to the two languages and probably to many others in emphasizing Totality is the use of a Partitive instead of

a Totality and negation of both the Partitive and the main verb. If the main verb is originally negated, then a negative obligatorily cancels a negative and the interpretation becomes affirmative. (See 12b, c).

$$\text{Tot} + \langle\text{Neg}\rangle + \text{V} = \text{Neg} + \left\{\begin{matrix}\text{yi} + \text{M} \\ \text{yidiar}\end{matrix}\right\} + \text{Neg} + \langle\text{Neg}\rangle + \text{V}$$

Partitives used for Totality in Mandarin are yi + M (one + Measure), yidiar (a little, a bit), and the indefinite scope you 'some'.

12aC. neixie shu quanbu dou haokan
those book all interesting
All of these books are interesting.

a'C. neixie shu meiyou yiben bu haokan de.
None of those books is not interesting.

a"C. neixie shu bu haokan de yi ben ye mei you.
Of those books, there is no single one that is uninteresting.

12bC. neixie shu quanbu dou bu haokan.
All of those books are not interesting.

b'C. neixie shu meiyou yiben haokan de.
b"C. neixie shu yiben ye meiyou haokan de.
E. None of those books is interesting.

b'"C. neixie shu haokan de (lian) yi ben dou/ye meiyou.
E. Of those books, there is none which is interesting.

12cC. tamen quan dou bu lai.
E. All of them are not coming.

c'. Tamen meiyou yige lai.
c"C. Tamen (lian) yige dou/ye bu lai.
E. None of them is coming.

With a negated verb the ye, which may also mean 'also' (cf. Japanese mo, which may also mean 'also') is preferred to dou though both are generally grammatical.

There is an interesting transformation possible for sentences with Neg + Partitive, namely, the predication of Neg or Partitive + Neg with the rest of the sentence topicized (See 4 for predication) as in a" and b".

In front of the Partitive used for Totality lian 'even' can be used. It emphasizes totality even more, as the effect of a counter-expectative usually does. Its Japanese equivalent is de sae mo, to site 'even'.

Examples using question words for Totality in Japanese are:

(1)

$$Q + minna + N \Rightarrow \left\{\begin{array}{l} \text{dare de mo, dare mo kare mo} \\ \text{'whoever'} \quad \text{(if N = Nh)} \\ \\ \text{nan de mo, nani mo ka mo,} \\ \text{nan de mo kan de mo} \\ \text{'whatever'} \quad \text{(if N = Nh, Nloc)} \\ \\ \text{doko de mo, doko mo kasiko mo} \\ \text{'wherever'} \quad \text{(if N = Nloc)} \end{array}\right\}$$

e.g. 11aJ. *Mura zyuu no hito wa kare wa Q + minna + hito sitte iru.

a'. Murazyuu no hito wa kare wa {dare de / dare mo kare} mo sitte iru.

E. He knows whoever is in the village.

$$Q + minna + Nup \Rightarrow \left\{\begin{array}{l} \text{dono iti M mo} \\ \text{dore de mo} \\ \text{dore mo kore mo} \end{array}\right\}$$

e.g. 11bJ. *Korera no hon wa Q + minna + Nup omosiroi.

b'. Korera no hon wa {dono itisatu / dore de / dore mo kore} mo omosiroi.

E. Any one of these books is interesting.

(2) Examples using only distributive words like mai 'every' in mai niti 'everyday' for Totality are lacking in Japanese. But the combination of a question word and a demonstrative seems to convey the idea as in 11a' and b'.

(3) $$minna + V + (Neg) \Rightarrow \left\{\begin{array}{l} \text{iti + M + mo} \\ \text{sukoshi mo} \\ \text{titto mo} \\ \text{zenzen} \end{array}\right\} + Neg + V + (Neg) + Neg$$

e.g. 12aJ. Korera no hon wa minna omosiroi
E. All these books are interesting.

a'J. Korera no hon wa iti satu mo omosiroku nai no wa nai.
E. None of these books is not interesting.

12bJ. Korera no hon wa minna omosiroku nai.
E. All of these books are not interesting.

12b'J. Korera no hon wa iti satu mo omosiroi no wa nai.
b''J. " " " " omosiroi no wa iti satu mo nai.
E. None of these books are interesting.

As has been said, instead of mo, to site, de sae mo 'even' can be used in the above two sentences for a more emphatic effect on Totality.

It should be admitted here that our solution as to whuch is a transform of which among the totality expressions is a very arbitrary one. We feel it hard to find convincing criteria for deciding which forms should be regarded as basic and which as transforms.[17]

7. PRT --> { NUP, Deg, FRC, Prt, Conj } + Ascp

Some examples of Partitive scope are given after lexical rules.

Conjoined nominals, the derivations of which are not well formulated here, are possible for both TOT and PRT scopes.

13Ca. Neixie ren A, B, C, han D dou lai le.

b. " " lian A han B dou lai le.

c. " " laile A han B.

d. Neixie ren zhi laile A han B.

13Ja. Ano hito tati wa A mo B mo C mo D mo minna kita.

b. " A mo B mo kita.

c. " A to B to ga kita.

d. " A to B to dake ga kita.

13Ea. Of those people, A, B, C, and D all came.

b. " even A and B came.

c. " A and B came.

d. " only A and B came.

Besides what is indicated in Rule 7, Chinese and Japanese use Totality words to express (or to emphasize) the idea of Partitive. Just as the idea of Totality is conveyed by the use of a Partitive with the negation of both the Partitive and the main verb, so the notion of Partitive is expressed by a Totality and the negation of both the Totality and the main verb.

Partitive + ⟨Neg⟩ + V = Neg + Totality + Neg + ⟨Neg⟩ + V

Again as in the case of Totality, if the main verb has a Negative, the main verb becomes affirmative since a Negative cancels another Negative. (See 14).

13aC. Tamen you ren lai.

J. Karera de/wa kita no ga iru.

E. Some of them came.

bC. Tamen bushi quanbu dou mei lai.

J. Karera wa minna ko nakatta no de wa nai.

E. It is not that they all did not come.

cC. Tamen mei lai de bushi quanbu.

J. Kanrera de konakatta no wa minna de nai.

E. It is not all of them that did not come.

14aC. Tamen youren mei lai.

J. Karera de/wa konakatta no ga iru.

E. Some of them did not come.

bC. Tamen meiyou quanbu dou lai.

J. Karera wa minna kita no de wa nai.

E. It is not that they all came.

cC. Tamen lai de bushi quanbu.

J. Karera de ki ta no wa mina dewa nai.

E. It is not all of them that came.

It is an interesting question how the relationships existing between 12a and 12a', 13a and 13b, etc. should be indicated in our grammatical analysis. That these paired sentences say the same thing in different

ways is transparent to logicians and sophisticated speakers, though not necessarily so to a common speaker. We are not sure to what extent a logician's intuition should be incorporated in our grammar when it differs from a native speaker's.

By recognizing a transformational relation between the two paired sentences, we seem able to eliminate the Neg attached to SCP from the Base, for the negation of a Totality scope can be derived from a Partitive scope with a negated verb; and the negation of a Partitive from a Totality scope with a negated verb. Hence, in the Base the verb only, not the SCP, is negatable, which is certainly a very desirable solution. But there are several types of adverbs possible for the Neg to the Scope, and some cases of negated Scope which cannot be derived transformationally and need to appear in the Base. (see 4.2 for more examples of Neg + Scope).

3.2 BASE II

3.2.1 Lexical Rules for Chinese

1. ADscp -> ⟨jing⟩ + ⟨{dou / zhi}⟩ 'even' 'all' 'only'

2. Tot -> {quanbu / dabufen} 'all' 'most'

3. Prt -> {dabufen / yibufen / shaobufen / yidiar} 'the majority' 'a part' 'a small part' 'a little'

It should be mentioned here that the Scope determinative yidiar "a little' can also be an adverb to the main verb or a degree expression to an adjective. In the following example, it cannot be interpreted as a nominal scope.

15cC. Neixie shu yidiar ye bu haokan.

E. These books are not interesting at all.

which is clearly different from 12b', b"C.

There may be cases where the yidiar may be a Scope or an adverb (which may be regarded as a verbal Scope) to the main verb, as in the following:

16C. Shu yidiar dou mei du.

E. (I) did not read even a bit.
(I) did not do even a bit of reading.

The shu 'book' here should be regarded as uncountable. Cf. du le yidiar shu 'did a little reading', du le jiben shu 'read a few books'.

4. App -> dayue 'approximately'

5. Ascp -> {duo /Tot [Deg +___]} 'many, much'
{shao} 'few, little'

6. Deg -> hen 'very'

3.2.2. Lexical Rules for Japanese

1. ADscp -> {mo} 'as many as'
{dake} 'only'

2. Tot -> {minna} 'all'
{zenbu} 'all'

3. Prt -> {daibubun} 'the majority'
{itibuhun} 'a part'
{sukosi} 'a few, a little'
(-- titto, zenzen)

Accompanied by Neg, sukosi mo can be said as titto mo, or zenzen. Again as in the case of Mandarin, sukosi mo, titto mo, and zenzen can be adverbs to the main verb or degree expressions to an adjective.

To be interpreted as a nominal scope, we should nominalize the adjective and predicate the Neg (which is an adjective in Japanese) in the surface structure (15b).

15aJ. korera no hon wa {titto mo / sukosi mo / zenzen} omosiroku nai.
these book interesting Neg

E. All these books are not interesting at all.

15bJ. Karera no hon wa minna omosiroku nai.

E. All these books are not interesting.

b'J. Korera no hon de/wa {titto mo / sukosi mo / zenzen} omoriroi no wa nai
interesting Neg

E. None of these books are interesting.

It is obvious that in b' it is the Scope, not the adjective omosiroi 'interesting' that is negated, for the sentence is to deny that there is any interesting book, not to deny that some book is interesting. Notice

that titto mo, etc. can also occur immediately before the Neg nai, e.g. ... omosiroi no wa sukosi mo nai.

4. App -> {bakari / hodo} 'about'

5. Ascp -> oku, takusan 'much, many'

6. Deg -> {kanari / zuibun / daibu} 'quite' 'quite' 'quite'

Some more examples for partitive Scope follow:

17C. tamen ⟨jing⟩ ⟨zhi⟩ you {dabufen / yibufen / shaobufen / henshao / sange / yiban / sanfen zhi yi} lai

17E. ⟨Even⟩ ⟨Only⟩ {the majority / a part / a few / very few / three / half / one third} of them came.

17J. Karera wa {itibubun / sukosi} ⟨dake⟩ kita (⇒sika konakatta)

Karera wa {sannin / hanbun / sanbun no iti} {dake / mo} kita (⇒ sika konakatta)

E. {⟨Only⟩ {a part / a few}} / {⟨Only⟩ / ⟨Even⟩ {three / half / one third}} of them came.

UNIVERSE-SCOPE RELATIONS IN CHINESE AND JAPANESE

(continued from previous issue)

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4. Topic-Comment and Universe-Scope

As stated above, the UNV tends to be the known and, therefore, is likely to assume the role of Topic or derived Subject with the SCP and rest of the sentence (represented by X and Y in the following) functioning as Comment or derived Predicate of the sentence.[18]

4.1. Topicalization of UNV

		Topic	Comment
(12)	Chin.	UNV	X SCP Y[19]
	Jap.	UNV wa	X SCP Y
	e.g.	(see 1a, 2a)	

There are formal criteria to identify Topic and Comment in the two languages.

In Mandarin Topic always occurs at the beginning of the sentence and there is a potential pause after it.

In Japanese, Topic is also always seen at the beginning of the sentence[20] and is marked off by the case marker wa, no matter whether it is part of the under-lying Subject, Object or some other nominal phrase.

It is noteworthy here that in Japanese a topicalization wa-phrase should not contain any interrogative word. Hence, 13a is not grammatical because in the noun phrase with wa there is a question word dono 'which'.

13aJ. *Dono kurasu wa sannin dake kita ka?

E. From which class did only three students come?

bJ. Dono kurasu ga sannin dake kita ka?

E. From which class did only three students come?

Nor is the 13c proper as an answer to b because it topicizes the noun phrase that includes the very information demanded by b.

13cJ. Kono kurasu wa sannin dake kita.

E. As for this class, only three students came.

This strict restriction in the use of wa in Japanese serves to support the interpretation that wa is the topicalization marker, since interrogated words usually carry the point of message and should be put in the Comment or derived Predicate and not in the Topic, which normally refers to what is already known.

As a matter of fact, when the SCP is the focus of interest, especially when SCP is interrogated, there is a tendency for the SCP to exclusively assume the role of surface Predicate (or Comment), with the rest of the sentence standing as Topic.

4.2. Predication of SCP[21]

		TOP	Comment	
(1)	Chin.	UNV XY de	{you / shi}	SCP
	Jap.	UNV de XY no wa		SCP {da / iru / aru}

e.g. 15aC. na bawei keren lai de you jiwei?

bC. (na bawei keren lai de) you sanwei

15aJ. Ano hati nin no okyaku san de kita no wa nannin ka?

bJ. (Ano bati nin no okyaku san de kita no wa) sannin da

15aE. Of the eight guests how many were those who came?

bE. Of the eight guests there were three who came.

Here thanks to the presence of Chinese de and Japanese no wa the identification of Topic and Comment is even clearer in both languages. A proper answer to a question which has a predicated SCP containing a question word (15a) should have SCP and, moreover, this SCP which is the new information and should be predicated also (15b).

On the other hand a predicated SCP can be used to answer a question which does not predicate the interrogating SCP. Thus 15b can be an answer to 15c as well as to 15a.

15cC. Na bawei kenen laile iwei?

cJ. Ano hati nin no okayakusan wa nannin kita ka.

cE. Of the eight guests how many came?

The Topic in 15, the understood part, is usually deleted in the answer in both languages.

Here are further examples for topicalization of UNV in contrast with predication of SCP.

When the main verb or a Partitive scope is negated, or when SCP is expanded into Deg + A, a sentence without an exclusive predication of SCP may sound unnatural or even ungrammatical.

A. SCP = D + Num

16aC. na baben shu you (zhe) sanben mei maidiao

bC. na ba ben shu mei maidiao de shi zhe sanben

16aJ. Ano hassatu no hon wa (kono) sansatu uranakatta

bJ. Ano hassatu no hon de uranakatta no wa kono sansatu da

16aE. Of the eight books, (these) three were not sold.

bE. Of the eight books, these were the three which were not sold.

B. SCP = ADscp + N + Conj + N

17aC. tamen zhi you Wang xiansheng han Li xiansheng lai guo.

bC. tamen dangzhong laiguo de zhi you Wang xiansheng han Li Xiansheng.

17aJ. karera wa Oosan to Lisan dake ga kotira e kita koto ga aru.

bJ. karera de kotira e kita koto ga aru no wa Oosan to Lisan dake da.

17aE. Of them only Mr. Wang and Mr. Li have been here.

bE. Of them there are only Mr. Wang and Mr. Li who have been here.

C. SCP = ADscp + Nup

18aC. tamen jing you yiban jige

bC. tamen jige de jing you yiban

18aJ. karera wa hanbun mo gookaku sita.

bJ. karera de gookaku sita no wa hanbun mo iru.

18aE. Even half of them passed.

bE. There are even half of them who passed.

D. SCP = Neg + Tot[22]

23aC. tamen {bushi / meiyou} quanbu dou lai

bC. tamen lai de bushi quanbu

23aJ. karera wa minna ko nakatta no de wa nai

23aE. They did not all came.

bE. It was not all of them who came.

E. SCP = Neg + Deg + A (with a positive main verb)

24aC. naxie xuesheng meiyou name duo lai

those students not that many came

bC. naxie xuesheng lai de meiyou name duo

24aJ. ano gakuseitati wa sonna ni ooku wa kite inai.

E. Of those students, not that many came.

bJ. ano gakuseitati de kita nowa sonna ni ooku inai

E. Of those students, there weren't that many who came.

F. SCP = Neg + Deg + A (with a negative main verb)

25aC. naxie xuesheng meiyou name duo ren mei lai

those students no that many people not come

bC. naxie xuesheng meiyou lai de mei name duo

not that much

25aJ.* ano gakuseitati wa sonna ni ooku naku konakatta

E. Of those students, those who didn't come were not that many.

bJ. ano gakuseitati de konakatta no wa sonani ooku nakatta.

E. Of those students, there were not that many that didn't come.

G. SCP = Neg + Prt

26aC. neixie shu meiyou yiben haokan

those book Neg one M interesting

bC. neixie shu haokan de yiben ye/dou meiyou

cC. neixie shu yiben haokan de ye/dou meiyou

26aJ.* sorera no hon wa/de iti satu mo omosiroku nai

E. None of those books is interesting.

bJ. sorera no hon wa/de omosiroi no wa issatu mo nai

E. Of those books, there is no single book that is interesting.

cJ. sorera no hon de/wa iti satu mo omosiroi no wa nai

E. Of those books, there is no single book that is interesting.

It is interesting to notice that the Neg should be usually at the end of the sentence in Japanese and that in limited cases both Japanese and Chinese allow separation of Neg and Prt as in 26c.

It can be further expected that an interrogated SCP (indicated by Q [X] in the following) tends to be predicated and an answer to such a question would be improper unless the SCP, the main concern in the answer, is likewise predicated.

A. SCP = Q [D] + Nup

26aC. nà bawei keren you nǎ sanwei mei lai

bC. nà bawei keren mei lai de shi/you nǎ sanwei

26aJ. Ano hatinin no okyakusan wa dono sannin ga konakatta ka?

E. Of those eight guests, which three didn't come?

bJ. Ano hatinin no okyakusan de konakatta no wa dono sannin ka?

E. Of these eight guests, which were the three who didn't come?

B. SCP = Q [D + NUP]

26cC. nà bawei keren you nǎ jiwei mei lai?

E. Of the 8 guests how many did not come and who are they?

dC. nà bawei keren meilai de shi nǎ jiwei?

E. Of the 8 guests who are those that did not come? (and how many there were)

cJ. *Ano hatinin no okyakusan wa konakatta no wa dono nannin ka?

C. SCP = Q [NUP]

27aC. nà bawei keren you jiwei lai le?

bC. nà bawei keren lai de you jiwei?

28aJ. Ano hitotati wa anata wa dare o sitte iru ka?

E. Of those people, whom do you know?

bJ. Ano hitotati de anata ga sitte iru no wa dare ka?

E. Of those people, who are those whom you recognize?

D. SCP = Q [N]

28aC. naxie ren ni renshi shei?

bC. naxie ren ni renshi de shi/you shei?

28aJ. Ano hitotati wa anata wa dare o sitte iru ka?

E. Of those people, whom do you know?

bJ. Ano hitotati de anata ga sitte iru no wa dare ka?

E. Of those people, who are those whom you recognize?

E. SCP = Q [MOD] + N

29aC. naxie ren (dangzhong) ni xihuan zenyang de ren?

bC. naxie ren (dangzhong) ni xihuan de shi zenyang de ren

29aJ. Ano hitotati wa anata wa donna hito ga suki ka?

E. Of those people, what type do you like?

bJ. Ano hitotati de anata ga suki na no wa donna hito ka?

E. Of those people, what type are those whom you like?

F. SCP = Q [N + Conj + N]

30aC. tamen you shei han shei meiyou lai?

bC. tamen meiyou lai de shi/you shei han shei?

30aJ. Karera wa dare to dare ga konakatta ka?

E. Who of them didn't come?

bJ. Karera de konakatta no wa dare to dare ka?

E. Which of them were the ones that didn't come?

4.3 In addition to an exclusive predication of SCP, both Chinese and Japanese allow an exclusive predication of UNV if the UNV has a group Measure such as ban, kurasu 'class'. In this case the topicization of all the rest of the sentence is always implied. When a UNV is interrogated, it tends to be predicated. Notice that in this case the head noun tends to go with SCP rather than UNV (or the head noun for UNV tends to be deleted)

A. UNV = Q [D] + NUP + N

31aC. nǎ yiban zhi lai le sange xuesheng?

which class only come 3 M student

bC. zhi lai le sange xuesheng de shi nǎ yiban?

only come 3 M student be which class

31aJ. Dono kurasu ga gakusei sannin dake kita ka?

E. Which class had only three students come?

bJ. Gakusei sannin dake kita nowa dono kurasu ka?

E. Which is the class that had only three students come?

B. UNV = D + NUP + N

32aC. zhi lai le sange ren de shi zhe yiban

only come 3 M people be this class

aJ. Sannin dake kita no wa kono kurasu da.

E. It is this class from which only three came.

C. UNV = Q [NUP]

33aC. You jǐ da qianbi duan le yiban yishang

have how dozen pencil break half over many

bC. duan le <u>yiban yishang qianbi</u> de you <u>ji da</u>

E. break half over pencil have how many dozen

33aJ. nan daasu no enpitu ga han bun izyoo oreta ka?

E. How many dozens of pencils are there that have more than half broken?

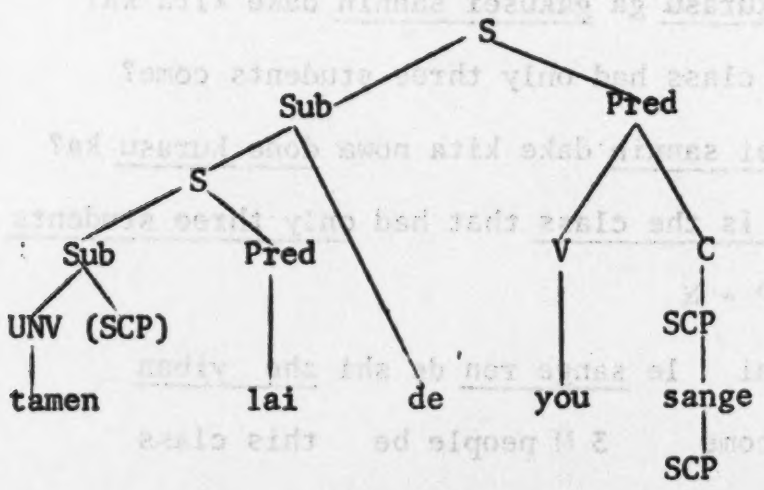
bJ. enpitu hanbun izyoo oreta no wa nan daasu ka?

E. How many dozens of pencils are there that have more than half broken?

4.4 Grammatical Status of Topic and Comment

So far we have discussed Topic and Comment without explaining their position in our frame of analysis. The truth is that there are many possible ways of incorporating these observations into our grammar and we need some other types of information before deciding which one to adopt.[23]

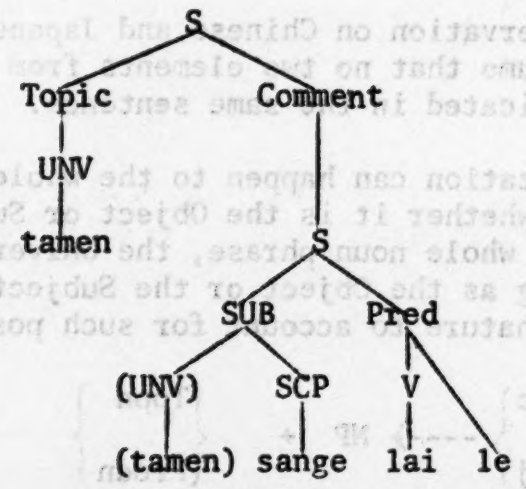
(1) The notions of Topic and Comment are equated to Subject and Predicate respectively and the idea of topicization or predication is expressed through embedding plus permutation or deletion transformations.



(2) The notions of Topic and Comment are, as tentatively suggested by Chomsky (1965) (see Footnote 11 in Section 2), impliedin the surface structure and need not appear in the Base.

(3) They are regarded as high order categories that may dominate categories like Subject (or Actor), Predicate (or Action). (See P-markers in Footnote 21)

If we need a scheme of grammar capable of generating P-markers like:



The parenthesized element will be deleted. (This possibility will be discussed later). It should be mentioned that the notions of Topic and Comment have more bearing on the final arrangements of sentence i.e. they correspond more closely to the linguistic shapes of sentences) and it is not surprising that there have been linguists who equate them to grammatical Subject and Predicate respectively, rejecting the Actor-Action relation as irrelevant in grammatical or structural analysis.[24]

(4) They are treated as formatives that appear in the Base component so as merely to trigger a permutation transformation with or without addition of markers like de you, de shi in Chinese and wa, wa ... da/iru/aru in Japanese.

For the purpose of the following discussion on co-occurrence restrictions among topicization, predication, universe and scope, we shall assume that the last alternative is adopted.

5. Co-occurrence Restrictions among Topicization, Predication, UNV and SCP.

According to the PS rules presented in Section 3, since any noun phrase can be expanded into UNV and SCP and both the Subject and the Object are expanded into noun phrases, it can be expected that there may be two pairs of UNV and SCP in the same sentence. This does not seem to be objectionable since we do have sentences like:

34C. zhe bage xuesheng de sange chi guang le na bawan fan de liu wan

this 8 student 3 eat up that 8 bowl rice 6 bowl

J. Kono hatinin no gakusei no sannin ga ano happai no mesi no roppai o tabeta

E. Three of these eight students ate six of those eight bowls of rice.

Notice that no part of the Subject or Object is topicized or predicated.

From our observation on Chinese and Japanese sentences, it seems reasonable to assume that no two elements from different noun phrases are topicized or predicated in the same sentence.

Since topicization can happen to the whole noun phrase or the Universe of a noun phrase whether it is the Object or Subject,[25] and since predication can happen to the whole noun phrase, the Universe, or the Scope of a noun phrase functioning as the Object or the Subject, we need to write rules of the following nature to account for such possibilities.

$$\left\{\begin{matrix}\text{Sub}\\ \text{Obj}\end{matrix}\right\} \longrightarrow \text{NP} + \left\{\begin{matrix}\text{Topn}\\ \text{Predn}\end{matrix}\right\}$$

$$\text{NP} \longrightarrow \text{UNV}\left\{\begin{matrix}\text{Topn}\\ \text{Predn}\end{matrix}\right\} + \text{SCP} + \langle \text{Predn} \rangle$$

From our observation on Chinese and Japanese sentences, however, no two or more elements are predicated in the same sentence. Moreover, if the SCP of any NP is predicated no other topicization can occur unless the UNV of the same NP is also topicized.

Our rules above will, of course, generate a string that contains more than two Predn's in the same sentence or one Topn and one Predn in different noun phrases. This can be easily prevented by writing T-rules that will operate only on possible deep structures.

Within these restrictions the following combinations of UNV and SCP with Topn and Predn are possible for any NP in a sentence.

35a. X + UNV + SCP + Y

b. X + UNV + Topn + SCP + Y

35c. X + UNV + SCP + Predn + Y

d. X + UNV + Top + SCP + Predn + Y

e. X + UNV + Pred + SCP + Y

The last combination is very restricted as stated above. When these go through the following T-rules, (simplified)

T1 Predication I

Japanese	Chinese
SD: X, UNV + ⟨Topn⟩, SCP + Predn, Z	SD: (Same as Jap.)
(1) X or Z contains no Predn, Topn	(1) (" " ")
(2) If 2 = UNV	
SC: 2+de+1+4+nowa, SCP + da	SC: 2+1+4+de, {shi / you} + SCP
(3) 2 = UNV + Topn	
(4) X or Z contains no Predn	
SC: 2+dewa, 1+4+nowa, SCP + da	

T2 Predication II

Japanese	Chinese
SD: X, Y + Predn, Z	SD: (same as Jap.)
(1) Y = NP, UNV ...	(1) (" " ")
(2) X, Y, Z contains no Predn or Topn	(2) (" " ")
SC: 1 + 3 + nowa, Y + da	SC: 1 + 3 + de, shi + Y

T3 Topicization

Japanese	Chinese
SD: X, Y + Topn, Z	SD: (same as Jap.)
(1) Y = NP, UNV, ...	(1) (" " ")
(2) X, Y or Z contains no Predn	(2) (" " ")
SC: Y + wa, 1 + 3	SC: Y, 1 + 3

T4 Linking of UNV and SCP without Topicization or Predication

Japanese	Chinese
SD: X, UNV, SCP + Y	SD: (same as Jap.)
SC: 1, 2 + no + {naka / uti} + no, 3	SC: 1, 2 + dangzhong + de, 3
SC: 2 + no + {naka / uti} + de, ~~1, 3~~	SC: 2 + dangzhong, 1, 3

they will have the following forms respectively.

		Japanese	Chinese
(T4)	a.	X + UNV + no + SCP + Y	X + UNV + de + SCP + Y
(T3)	b.	UNV + wa, X + SCP + Y	UNV, X + SCP + Y
(T1)	c.	UNV + de + X + Y + nowa, SCP + da	UNV + X + Y + de, shi +SCP
(T1,3)	d.	UNV + wa, X +Y + nowa, SCP + da	UNV, X + Y + de, shi + SCP

Here we indicate closer grouping of elements by "+" in contrast with"," But exactly what the resulting P-markers will be like cannot be determined by these rules.

6. Some Remaining Problems

With the Noun Phrase expanded into UNV and SCP, we probably need to answer an important question: which nominal is responsible for generating a noun phrase with a single nominal, UNV or SCP? In order to avoid unnecessary ambiguity we seem justified in writing NP --> <UNV> + SCP so that the single noun can be assigned uniquely to SCP, the UNV of which is irrelevant or unspecified. As a matter of fact NP --><UNV> + Nom is even better since when there is only one nominal in a noun phrase the label SCP is somewhat misleading. In case both UNV and Nom are chosen, the notions of universe and scope can be inferred from the presence of the UNV.

It remains to examine how the notion UNV differs from ordinary relative clauses. There have been several generative analyses treating Chinese N de N Japanese N no N as a transform of Mod + N, where Mod dominates an embedded sentence.

$$\left\{\begin{matrix} X + N + Y \\ X' + N' + Y' \end{matrix}\right\} \Longrightarrow X + Mod\ [X' + Y' + de] + N + Y$$

where N = N'. Hence in Chinese N de N' is regarded as a special case of X' + Y' + de N where X' + Y' = N + you, N + aru ' N possess' or 'N have'.

It is apparent that we need to establish a category (i.e. a node) which may be labelled as UNV for its syntactic behavior differing in several ways from the ordinary relative clause. (Whether such a UNV is to dominate and S so as to get a nominal phrase transformationally or should directly dominate a nominal is another problem). This is so because:

(1) there is no proper source for all cases of nominals in UNV-SCP relation and we cannot afford to specify all the verbs in each transformation involving UNV-SCP relation;

(2) where the SCP is a totality scope or an indefinite nominal, we cannot find any verb to show their semantic relation in a grammatical sentence at all, e.g.

	(you)		(quanbu)		(have)	(all
*na xie ren +	:	+	meige	*those people		every
	(shi)		(sange)		(are)	(three)

We need also to distinguish UNV + Nom from Genitive + Nom if it should be decided that the Genitive should be treated differently from an ordinary Modifier (and we think it should be labelled differently, since it is semantically more closely related to the head noun (eg. wode zhaopian 'my photo picture' with wo suo you de zhaopian 'the picture I have' you wo xiang mao de zhaopian 'the photo picture that represents me' and wo zhao de zhaopian 'the photo picture that I took'). In spite of the similarity in the final string (they are both Nom-de Nom in Chinese and Nom-no Nom in Japanese), they behave differently in a few transformations and different labels for them are called for.

Here are some examples in which transformations are possible for the Universe of a nominal but not for the Genitive.

35aC.	nà yiban (xuesheng) de sange xuesheng	(Universe)
bC.	nà wei laoshi de sange xuesheng	(Genitive)
aJ.	ano kurasu(no seito)no sannin	(Universe)
bJ.	ano sensei no gakusei sannin	(Genitive)
aE.	3 of the students of the class	(Universe)
bE.	the teacher's 3 students	(Genitive)

Post-transposition:

36aC.	nà yiban xuesheng bingle sange
bC.	*nà wei laoshi bingle sange xuesheng
aJ.	ano kurasu no seito ga sannin byooki sita
bJ.	*ano sensei ga gakusei sannin byooki sita
aE.	3 students of the class got sick
bE.	*the teacher has three students got sick

Pre-transposition or topicization:

37aC.	xiaozhang ba nà yiban xuesheng kaichu le sange
bC.	*xiaozhang ba nà wei laoshi kaichu le sange xuesheng.
aJ.	ano kurasu no seito wa kootyoo ga sannin o taigaku saseta
bJ.	*ano sensei wa kootyoo ga gakusei sannin o taigaku saseta
aE.	The principal dismissed 3 of the students in the class

Passive:

38aC.	nà yiban xuesheng bei kai chu le sange
bC.	**nà wei laoshi bei kaichu le sange xuesheng
aJ.	ano kurasu no seito wa sannin ga taigaku sascrareta

bJ. **ano sensei wa gakusei sannin ga taigaku saseraremasita
aE. 3 of the students of the class were dismissed
bE. The teacher was dismissed of three students.

Predication of the Head Nominal:

39aC. na yiban xuesheng jintian meilai de you sange
bC. *na wei laoshi jintian mei lai de you sange xuesheng
aJ. ano kurasu no seito de wa kyoo konakatta no wa sannin iru
aE. There are 3 of the students of the class who did not come today

We would also like to point out that the notion of Universe and Scope is not restricted to noun phrases functioning as Subject or Object. Noun phrases functioning as Time, Place, Indirect Object or Direct Object may occur in the same pattern.

Indirect Object:

40aC. na yiban xuesheng wo quan dou gei le A
J. Ano kurasu no seitotati wa watakusi wa minna ni A o yarimashita
E. I gave A's to all students of that class.
bC. na yiban xuesheng wo zhi gei le sange ⟨ren⟩ A.
J. Ano kurasu no seeto ⟨ni⟩ wa watakushi wa sannin dake ni A o yarimashita.
E. I gave A's to only 3 students of that class.

Direct Object:

41aC. na yida qianbi wo yijing gei ta sanzhi le.
J. Ano iti daasu no enpitsu wa watakusi wa moo kare ni sanbon agemasita.
E. I have given him 3 out of that dozen ⟨of⟩ pencils.
bC. na yida qianbi wo yijing quan dou gei ta le.
J. Ano iti daasu no enpitsu wa watakusi wa moo zenbu kare ni agemasita.
E. I have given him all of the dozen ⟨of⟩ pencils.

Place:

42aC. xibu de da chengshi wo meige difang dou quguo.
J. Seibu no kaku daitosi e wa watakusi wa minna itta koto ga arimasu.
E. I have been to every big city in the West.
bC. xibu de da chengshi wo zhi quguo liangge difang.
J. Seibu no kaku daitosi e wa watakusi wa nikasyo ⟨ni⟩ dake itta koto ga arimasu.
E. I have only been to two of the big cities in the West.

Distance:

43aC. shi gongli lu women yi jing pao le jiu gongli le.
J. 10 Km. no miti o watakusi wa moo 9 Km. hasirimasita.
E. We have run 9 Km. (out) of the 10 Km.
43bC. shi gongli lu women zhi pao le yi gongli.
J. 10 Km. no miti o watakusi wa 1 Km. dake hasriimasita.
We ran only 1Km. (out) of the 10Km.

Duration:

44aC. yinian sanbai liushiwu tian wo zhi zai waimian zhu le san tian.
J. Itinen 365 niti de watakusi wa sotode mikkakan dake tomarimasita
Out of 365 days in one year, I stayed away from home only 3 days
bC. yige xingqi de xiujia yijing wan le wu tian le.
J. Issyuukan no yasumi wa sude ni itukakan asonde simai masita.
Out of a vacation of one week, 5 days have been spent fooling around.

Frequency:

45aC. na jici hui wo dou mei canjia.
J. Ano nankai ka no kaigi ⟨ni⟩ wa watakusi wa {zenzan / minna} sanka sinakatta.
I did not attend any of the several meetings.
bC. na jici hui wo zhi canjia zuihou yici.
J. Ano nankai ka no kaigi ⟨ni⟩ wa watakusi wa saigo no ikkai {dake ni / ⟨ni⟩ dake} sanka simasita.
Among those meetings, I attended only the last one.

Time:

Time adverbs like Chinese yizhi 'always, ceaselessly', tongchang 'usually', or shishikeke 'always' Japanese itsumo 'always', mainiti 'everyday' may be regarded as Totality scope of Time and Chinese you shihou 'sometimes', yihuir 'a while', henshao 'seldom', Japanese tokidoki, tamani 'occasionally', arutoki 'sometimes' as Partitive scope of Time the UNV of which may or may not be specified.

46aC. (Qunian) wo changchang dao zheli lai.
J. (Kyonen) boku wa itumo kotira e kita.
E. (Last year) I came here often.
bC. (Qunian) wo ouer dau zheli lai.
J. (Kyonen) boku wa tamani kotira e kita.
E. (Last year), I came here occasionally.

There are some other problems which are related to Universe and Scope and yet have not received due attention in this paper. The most important ones, perhaps, are expressions with Chinese chule ... yiwai 'except,

besides', Japanese o nozoite, no hoka 'except, besides' which have been generally regarded as sentence or verb adverbial, and yet, in our opinion, should be analyzed as modifier to UNV (47a) or SCP (b).

47a. Chule Lao Wang yiwai de na shige ren quan dou lai le.
Oosan yigai no ano 10 nin wa minna kita.
All the ten persons besides Old Wang, came.

47b. Na shige ren chule Lao Wang yiwai quan dou lai le.
Ano 10 nin wa Oosan o nozoite minna kita.
Of the 10 persons, all except Mr. Wang came.

Of interest is the defining of UNV or SCP by the beginning and/or ending points. Such a device is possible for any of the above categories.

48C. zhe yi ben shu wo zhi cong di san ye du dao di wu ye.
J. kono hon wa watasi wa dai san peezi kara dai go peezi made sika yomanakatta.
E. As for this book, I only read from p. 3 to p. 5.

49C. nei chang dianying wo mei kan dao wei.
J. ano eega wa watakusi wa ohari made minakatta.
E. As for that film, I did not see to the end.

50C. Cong zaoshang ba dian dao xiawu wudian wo zhi xiuxi shifen zhong
J. gozen hati zi kara gogo gozi made watakusi wa jippunkan sika yasumanakatta.
E. From 8 a.m. to 5 p.m. I rest only for 10 minutes.

As we have noted above, every nominal may be regarded as containing an implicit or explicit indication of scope and allows a very good guess at the Universe involved. In English, for example, articles, demonstratives, indefinites, numbers and some adjectives are explicit scope indicators, while the situation or context plus the remainder of the nominal or noun phrase marks the universe. "This book" means "This particular one out of all the books in the world" (or, in given contexts, "on this desk", or "in this room"); "The red hat" means "Out of all the hats under consideration, the one red one." Notice that a singular definte expression like this always implies "There is one and only one..." "The dirty red hat", on the other hand, means "of all the red hats in the universe of discussion, the one dirty one." The two uses of 'all' in English, with and without 'the', differ in universe, not scope. For 'all red hats' the universe is all the red hats that ever have existed or ever will, while for 'all (of) the red hats' it is some particular set of red hats either specified in the context or known to both speakers; in either case the scope is equal to the universe. This distinction is not made consistently with 'both'; 'both red hats' is usually synonymous with 'both (of) the red hats'.

But these same notions may be applied to verbs, and in particular to the various devices which represent what logicians call modality, i.e. necessity and possiblity. So in a sentence such as "He may do it", we can

say that he....do it gives the universe, while may specifies the scope; and similarly for must, can, should and most probably also even will. Now this leads us (via the famous question "Are cans fundamentally iffy?") to note the basic semantic similarity of protasisapodosis sentences with universe and scope. In a sentence like "If he comes tomorrow, I'll speak to him" the conditional clause specifies the universe within which the conclusion is alleged to hold good. This is also (and even more) similar to the Topic-Comment relationship; the condition offers the topic, the conclusion gives the comment. But all this represents material for future research.

FOOTNOTES

1. For translation of lexical items in Sentences 1a - h and Sentences 2a - h see P-marker 7a and P-marker 7b respectively. $\{^{A}_{B}\}$ is sometimes written as A/B. Hence wa/ga in 1aJ means either wa or ga.

2. Instead of Universe and Scope, we shall later recognize Universe and Nominal.

3. By the term "subject" we mean the category that appears before the Verb in the Base; generally the actor of the action denoted by a transitive verb or action verb, or the possessor of the quality or state denoted by an adjective or linking verb.

4. Of Fillmore C.J. (1966, 1967)

5. A numeral phrase generally consists of a numeral plus a measure in both languages.

6. And referential. The restriction is approximately this: a true or non-deviant sentence must be possible with SCP or its head (plus etc.) as subject and UNV or its head as predicate. "Pencils etc. are stationery." "Pencils, etc. are things."

7. In Chinese, unlike dou which should always appear somewhere after (not necessarily immediately after) the Totality scope, the zhi always occurs somewhere before (again not necessarily immediately before) the Partitive scope.

8. Unlike the mo in Tot as in dare de mo 'whoever' (which is probably a contrasted form of dare de atte mo 'whoever he may be') where the omission of mo would make the sentence ungrammatical, this mo in in SCP is semantically significant since it is not required by the Prt, and a constant meaning can be assigned to the presence or absence of mo in sannin mo kita 'even as many as three persons came', sannin kita 'three persons came'. This mo in SCP should be distinguished from the mo 'too, also' in the following, though they may be etymologically related: Boku mo kita 'I came too'.

9. In Japanese, moreover, UNV + no + $\{^{naka}_{uti}\}$ + de (without wa following) can be placed before or after another noun phrase without the change in denotation, though some order may be more frequent (or favored) than others. The structural difference between UNV de+ . . . + SCP and UNV + no + SCP. (See sentences 1a'J and 1eJ) needs to be discussed separately.

10. It seems better to expand a noun phrase into (UNV) + Nom. to cover cases in which there is only one nominal in a noun phrase. The

nomenclature Scope is used, however, for convenience in explanation throughout this paper.

11. Cf. Chomsky, 1965, p. 2-1 footnote 32.

"It might be suggested that Topic-Comment is the basic grammatical relation of surface structure corresponding (roughly) to the fundamental Subject-Predicate relation of deep structure. Thus we might define the Topic-of the Sentence as the leftmost NP immediately dominated by S in the surface structure, and the comment of the sentence as the rest of the string. Often, of course, Topic and Subject will coincide, but not in the examples discussed. This proposal, which seems plausible, was suggested to me by Paul Kiparsky ..."

12. Many Scope expressions behave in a very similar way to ordinary adverbs in the two languages. The similarities and differences between quantifiers to the noun and quantifiers to the verb need to be investigated separately.

13. If one sees no structural relationship between 1h and 1a, we can rephrase as follows: 1a etc., which contain UNV and SCP can be, except for most cases where SCP is totality, paraphrased into 1h etc., where SCP is the predicate. We shall discuss in fuller detail the problem of how to show the relationship between two such sentences.

14. On the basis of these words we can classify the scope expressions into two classes: Totality scope and Partitive scope. In Chinese, a scope expression that never takes zhi 'only' is classified in Partitive scope. dabufen 'the majority' can be classified in both categories since it may take either dou or zhi.

In Japanese, scope expressions that may not take dake 'only' are classified in Totality scope. Those that may take mo 'as many as' or dake 'only' with difference in meaning are classified as Partitive scope. The categorial meaning of each is well indicated by the labels in both languages.

15. We indicate optionality by angle brackes ⟨ ⟩ and domination, (e.g. A dominates B) by square brackets (A [B]). The English glosses in ' ', and alternants in parentheses to the left of the base form should not be regarded as part of the rules.

16. We do not attempt in this paper to argue for an approach that treats order among elements as irrelevant in the Base. But we should like to point out that in most languages, some constituents are ordered in a particular way to be grammatical, whereas some others can be arranged in any order. Hence, we need rules for ordering of elements for the first type and need no such rule for the second type.

There is no denial that both our encoding and decoding of speech cannot be done without ordering of elements, but this does not warrant us in assuming that the existence of the relation of any two elements is presupposed by their ordering. Indeed, we can talk about an order-free relation between elements. It is the graphic presentation in which one has to juxtapose symbols one after another as well as our speech activities that are order-bound. To take advantage of this graphic limitation and skimp on rules for characterizing ordering of elements (probably motivated by economy of space) is one thing, whereas to explain how relationships between elements are understood and stored in our brain is quite another.

17. We could use "sameness in meaning" as the criterion for whether two forms should be transformationally related and economy in the whole grammar for deciding which of the two should be the basic form. But either criterion needs the analyst's intuition in practice. For we find no mechanical procedure in determining sameness in meaning and we can hardly achieve a meaningful quantification of grammatical statements or of thoroughness in description of all aspects of a language which are, in our opinion, prerequisite to using simplicity as <u>the</u> non-intuitive criterion.

18. We find Topic and Comment very useful notions in describing both Chinese and Japanese and many other languages. (cf. Hockett, 1958)

    That the notions are independent from underlined Subject (or Actor) and underlined Predicate (or Action) and from UNV and SCP can be easily seen from examples given in this section.

    For a detailed discussion of the distinction between wa and ga in Japanese see: Mikami, Akira (1963)

19. When X is null, i.e. when there is no other element in between UNV and SCP the existentive you is usually attached before SCP. This you functions in a very similar way to a verb and the scope adverb zhi 'only' or approximater dayue 'about' usually comes before it.

    na bage xuesheng {zhi / dayue} you yiban lai

    Of the right students {only / about} half came.

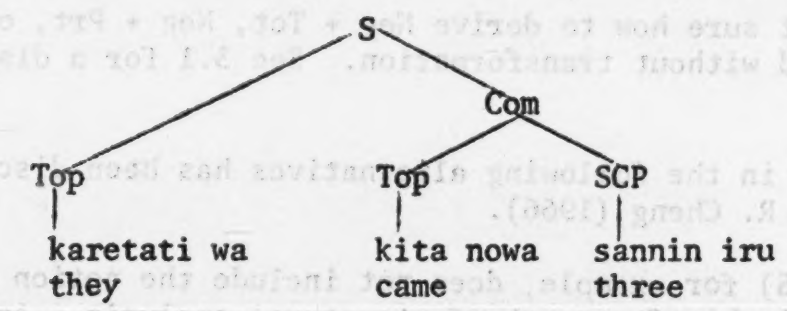
20. We recognize two kinds of wa, Topic wa and Contrastive wa. A noun phrase with contrastive wa can occur non-initially. In either case of wa no uti de, no nake de, or de can be optionally inserted between UNV and wa.

21. In predicating the SCP (or UNV) the verb used may be the copular shi 'be' the existentive you 'there be', or other quantitative verbs like da 'reach, amount to' in Chinese and copular da 'be' existentive iru, aru 'there be' or other quantitative verb like tassuru 'reach' in Japanese. Since there are differences in meaning among these verbs the choice of these verbs had better be determined in the Base. See Robert Cheng 1966, for a more detailed discussion of this problem.

Also see the first of the four alternatives for treating topicization and predication in 4.4.

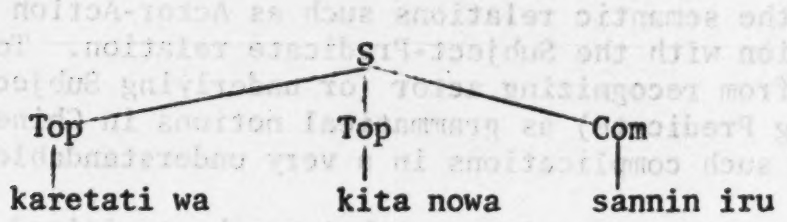
The predication of SCP implies that the rest of the sentence is topicized, which of course includes the UNV. An exclusive predication of SCP and an exclusive topicization of UNV may or may not coocur in the same sentence. When they do, the surface structure can be interpreted in two ways.

A



'Three of them came.'

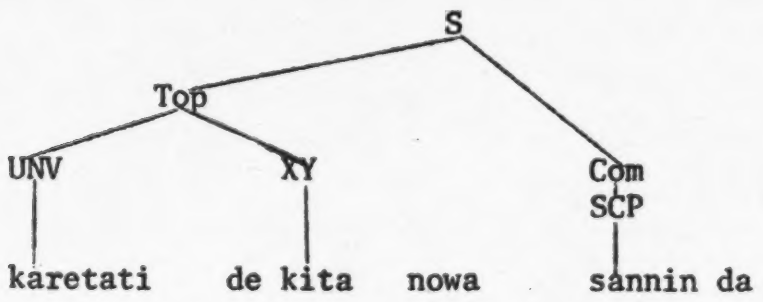
B



'Three of them came'.

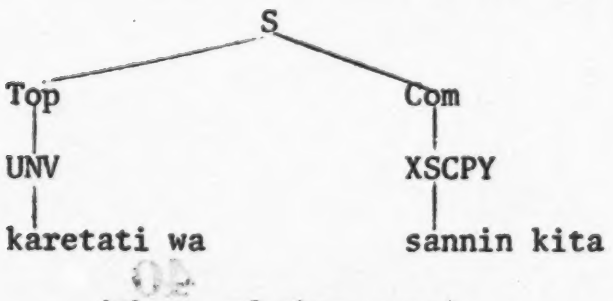
It seems better to eliminate either structure A or B as superfluous since either one suffices to account for its difference from C where SCP is predicated, and D where UNV is topicized.

C



'There are three of them who came.'

D



'Three of them came'

In the case of Japanese, wa indicates topicization and makes A or B differ from C. In the case of Chinese it is probably the longer pause that indicates the difference between B and C.

Japanese sentences appearing in A or B were rejected by some of my informants. But their rejection does not seem to be due to the cooccurrence of the topicization of UNV and predication of SCP since they accepted other sentences with such a cooccurrence.

22. We are not sure how to derive Neg + Tot, Neg + Prt, etc. They may not be derived without transformation. See 3.1 for a discussion of this problem.

23. The first in the following alternatives has been discussed in fuller detail in R. Cheng (1966).

24. Chao (1965) for example, does not include the notion of Actor-Action relation in his framework of structural analysis. An expression is identified as Subject because of such formal criteria as its position in the sentence and a potential pause after it. He does not ignore, however, the semantic relations such as Actor-Action relation and their complication with the Subject-Predicate relation. To be sure, he refrains from recognizing actor (or underlying Subject) and action (or underlying Predicate) as grammatical notions in Chinese, but he discusses such complications in a very understandable manner.

25. There seem to be more elements that can be topicized in Chinese and Japanese. See Soga's and Kuroda's dissertations in which they demonstrate what part of the sentence can be topicized (or subjectivatized, in Kuroda's term).

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